DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-019533
Date Inspected: 26-Jan-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Mr. Qiu wen

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder(OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG Assembly Bay- 14.

This QA performed random Visual Testing of OBG Segment 13BW and 13CW deck panel diaphragm splice joints after completion of one side welding, inspected face B side of welds back gouged areas. During inspection this QA observed linear longitudinal centre line cracks. These cracks have been confirmed by Magnetic Particle Testing. This QA Inspector informed to ZPMC Quality Control Certified Welding Inspector identified as Mr.Qiu wen.Mr. Qiu wen informed this QA that cracks would be corrected in a manner that complies with the contract documents. This QA Inspector also informed to Lead QA Inspector and sent the photos by mail.The details are as follows:

1. Segment: 13BW-Panel Point (PP) #122(Cross beam side).
- One Longitudinal Linear crack measuring approximately 490 mm in length.
- The weld is identified as: SEG3014B-001.
- This weld is Complete Joint Penetration (CJP) joining deck panel diaphragm plate to floor beam (FB3215A).
- The “Y” location is 0 from the top as shown on the picture below.

2. Segment: 13CW- PP #122.5(Cross beam side).

- Three Longitudinal Linear cracks measuring approximately 200 mm, 27 mm and 20 mm in length.
- The weld is identified as: SEG3014L-001.
- This weld is Complete Joint Penetration (CJP) joining deck panel diaphragm plate to floor beam (FB3222A).
- The “Y” locations are 0, 35 mm and 110 mm respectively from the top as shown on the picture below.

3. Segment: 13BW-PP #121.5(Cross beam side).
- One Longitudinal Linear crack through out the weld length measuring approximately 660 mm.
- The weld is identified as: SEG3014E-009.
- This weld is Complete Joint Penetration (CJP) joining deck panel diaphragm plate to floor beam (FB3216A).
- The “Y” location is 0 from the top as shown on the picture below.

4. Segment: 13BW-PP #121.5(Cross beam side).
- Two Longitudinal Linear cracks measuring approximately 85 mm and 210 mm in length.
- The weld is identified as: SEG3014E-012.
- This weld is Complete Joint Penetration (CJP) joining deck panel diaphragm plate to floor beam (FB3216A).
- The “Y” locations are 265 mm and 90 mm from the top as shown on the picture below.

This QA Inspector randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) Repair welding of weld joint identified as SEG3015F-293. Welder is identified as 037932. ZPMC Quality Control (QC) is identified as Mr. Sun tian liang. The welding variables recorded by QC personnel observed appeared to comply with Welding Procedure Specification (WPS): WPS-345-SMAW-3G (3F)-FCM-Repair. The repair welding was being performed as per Welding Repair Report (WRR) No: B-WR20190.This weld was previously rejected by ZPMC QC personnel and recorded on UT report B787-UT-19196.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as SEG3020W-186. Welder is identified as 0666236. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2231-ESAB.

SMAW welding of weld joint identified as DP3171-001-412. Welder is identified as 069493. American Bridge/Fluor (AB/F) QA is identified as Mr. Shen jian. The welding variables recorded by QA personnel observed appeared to comply with WPS: WPS-B-P-2213-TC-U4b-FCM.

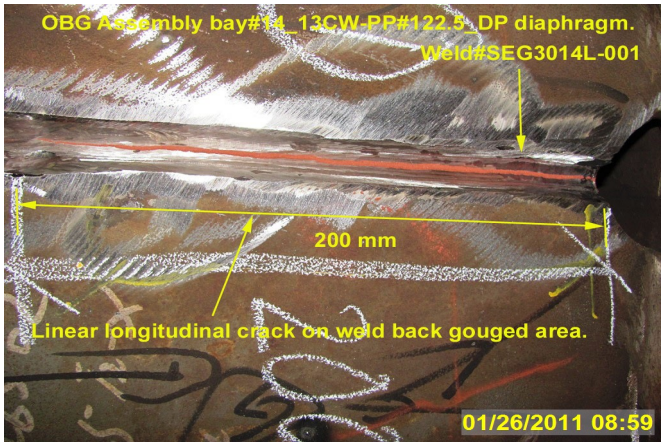
SMAW welding of weld joint identified as DP3169-001-118. Welder is identified as 037779. American Bridge/Fluor (AB/F) QA is identified as Mr. Shen jian. The welding variables recorded by QA personnel observed appeared to comply with WPS: WPS-B-P-2213-TC-U4b-FCM.

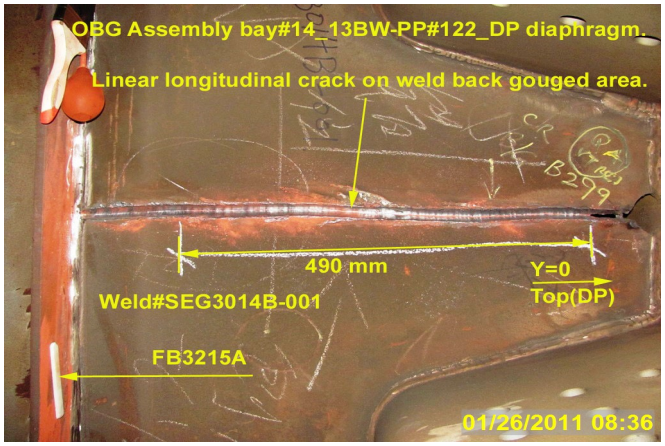
SMAW welding of weld joint identified as SEG3020AY-041,045. Welder is identified as 067609. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2213-TC-U4b-FCM.

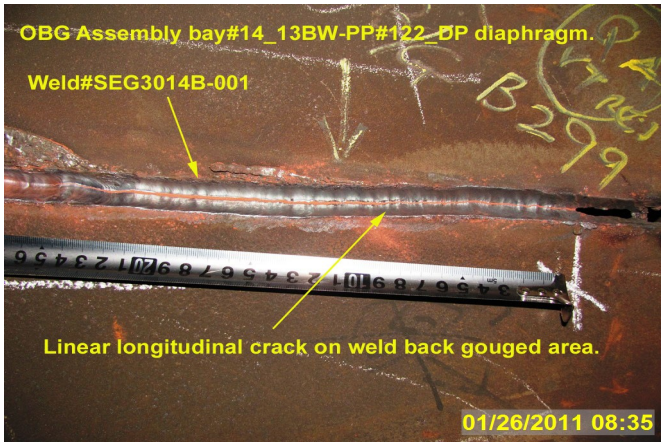
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

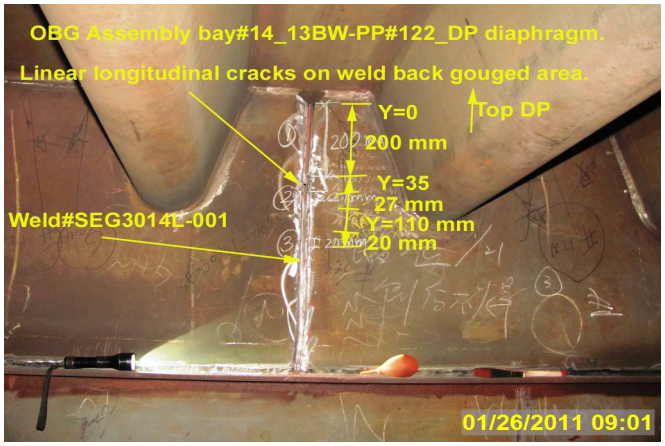
WELDING INSPECTION REPORT

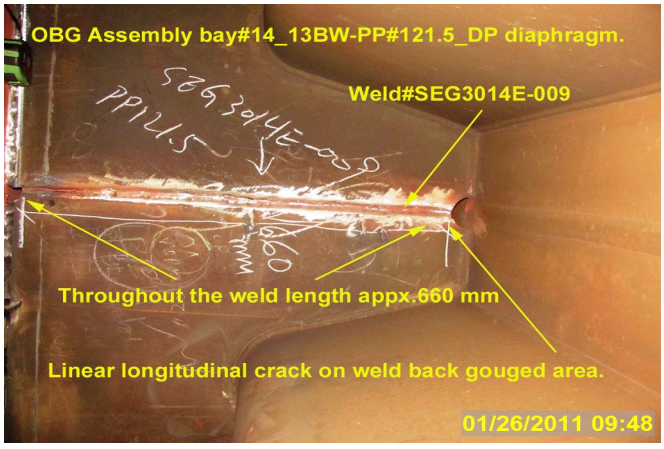
(Continued Page 3 of 4)

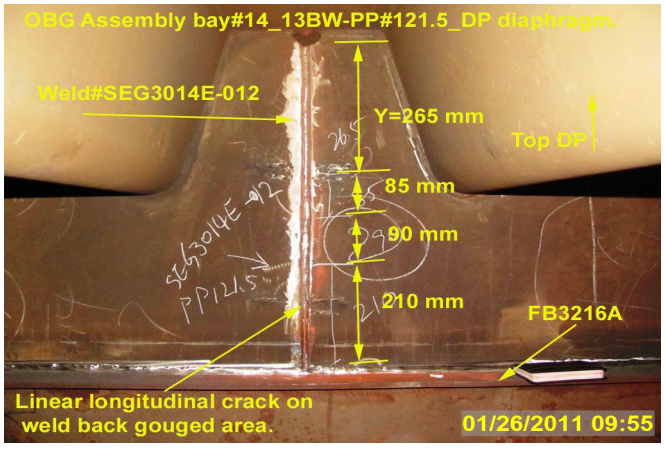






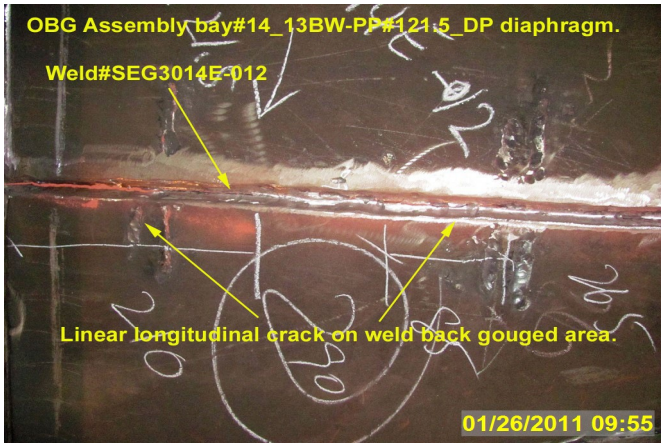


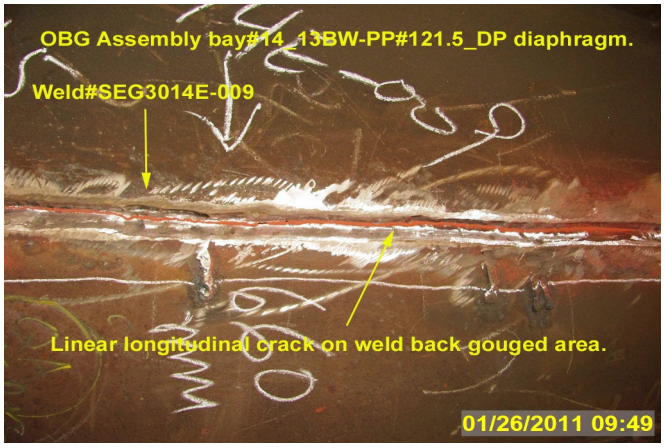




WELDING INSPECTION REPORT

(Continued Page 4 of 4)





Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer